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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,948	06/27/2003	Marcus W. May	SIG000096	3074

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EXAMINER

PARRIES, DRUM

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,948

Applicant(s)

MAY, MARCUS W.

Examiner

Dru M. Parries

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 16-22 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 16, 17, 21, 31, 32 and 36 is/are rejected.
- 7) ☒ Claim(s) 18-20, 22, 33-35 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 18-20, filed April 7, 2006, with respect to claims 7, 22, and 37 have been fully considered and are persuasive. The 112 rejection of those claims has been withdrawn.
2. Applicant's arguments, see page 20, filed April 7, 2006, with respect to claims 3, 18, and 33 have been fully considered and are persuasive. The 112 rejection of those claims has been withdrawn.
3. Applicant's arguments, see pages 20-21, filed April 7, 2006, with respect to claim 1 have been fully considered and are persuasive. The 103 rejection of claims 1, 2 and 4 has been withdrawn. The art used to reject claims 1, 2 and 4 does not read on the added limitation brought in from previous claim 7.
4. Applicant's arguments filed on pages 21-22, regarding claims 16, 17, 19, 31, 32, and 34 have been fully considered but they are not persuasive. Aldous, along with Case Law, can be used in combination to read on the new limitations added to claims 16 and 31. See paragraph 8, below.

Claim Objections

5. Claim 1 is objected to because of the following informalities: the Examiner believes that "conversing" should be read, "converting". Also, this claim lacks antecedent basis. To fix the problem the Examiner suggests changing (in line 3) "by comparing the supply voltage" to "by comparing a supply voltage" and also change (in lines 9-10) "from a battery into a supply voltage;" to "from a battery into the supply voltage". Appropriate correction is required.

6. Claim 16 is objected to because of the following informalities: the Examiner believes that “conversing” should be read, “converting”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 16, 17, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aldous (5,650,669) and Oh (2002/0065618). Aldous teaches a power management system comprising a microprocessor (22; i.e. mixed signal circuitry, digital interface circuitry and processing core combined) that inputs (lines 44, 60, 64, 72) and outputs (lines 42, 58, 70) analog signals and internally converts the input analog signals to digital and converts the digital signals back to analog to output them (inherent). He also teaches a first DC-DC converter (24) operable to convert DC power from source (32) comprising a DC power output from a personal computer into a supply voltage, and a second DC-DC converter (26, 48, 50) operable to convert an alternate power source (34) into a supply voltage (line 46), which is provided to the microprocessor (via line 64). He teaches the microprocessor to detect the presence of the alternate source, and when it is detected, he teaches disabling a first control loop of the first DC-DC converter and enabling a second control loop of the second DC-DC converter (Col. 8, lines 36-38; Col. 9, lines 45-52). He also teaches that when the presence of the alternate power source is not detected to enable the first control loop and disable the second control loop (Col. 9, lines

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52-58). Aldous fails to explicitly teach that the DC power from the computer is from a battery and the battery is coupled via an external inductor to an integrated circuit pad. Oh teaches a DC output power from a computer being provided by a battery ([0005], lines 3-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the power management system of Aldous to use batteries as taught by Oh because Aldous does not disclose what the source is and Oh teaches that batteries are a well known source for supplying electrical equipment with power. It also would have been obvious to one of ordinary skill in the art at the time of the invention to have module (20) of Aldous be made up of a plurality of integrated circuits, as stated in Admitted Prior Art; and to have the inductor (38) be external to one of those integrated circuit pads, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70, and since it is known in the art that integrated circuits are used in a wide variety of electronic equipment including portable or handheld devices (i.e. radios).

9. Claims 21 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aldous (5,650,669) and Oh (2002/0065618) as applied to claims 16 and 31 above, and further in view of Pascucci et al. (5,768,115). Aldous and Oh teach a power management system as described above. Aldous also teaches monitoring, by the first control loop, the supply voltage produced by the second DC-DC converter (via line 64). Aldous fails to teach generating a valid supply voltage indication when a near steady-state condition has been reached. Pascucci teaches generating a valid supply voltage indication when a steady-state condition has been reached (Col. 2, lines 25-29). It would have been obvious to one of ordinary skill in the art at the time of the

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invention to generate this indication signal so that the circuit can respond accordingly and operate under normal conditions.

Allowable Subject Matter

10. Claims 1-6 are allowed.

11. Claims 18-20, 22, 33-35, 37 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is an examiner's statement of reasons for allowance: Regarding claim 1, no prior art of record teaches the circuit configuration described in claim 1, along with the method described to detect the presence of a source (i.e. seeking a favorable comparison between the output voltage of another source with the output voltage from the source to be detected). Claims 2-6 are allowed because they depend on claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

13. The following is a statement of reasons for the indication of allowable subject matter: Claim 18 and 33 are allowable because no prior art of record teaches comparing the regulation voltage with a reference voltage to produce a regulation signal. Claims 19 and 34 are allowable because they are dependent upon the above claims. Reasons for claims 20 and 35 were given in the last office action. Claims 22 and 37 are allowable for the same reason as claim 1.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on Monday -Thursday from 8:00am to 5:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

5-30-2006



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